

WHAT IS CLAIMED IS:

1. A compound characterized by having a unit formed from a polysulfide diol and an organic dibasic carboxylic acid or its anhydride, wherein the hydroxyl groups are separated from said polysulfide by at least 2 carbon atoms, having a total of at least about 5 carbon atoms, said polysulfide having from 2 to 8 sulfur atoms.

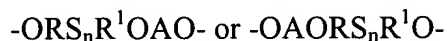
2. A compound according to claim 1, wherein said dibasic acid is an organic dicarboxylic acid or anhydride of at least about 2 carbon atoms and said polysulfide diol is aliphatic of from 4 to 40 carbon atoms.

3. A compound according to claim 2, wherein said polysulfide has from 2 to 4 sulfur atoms.

4. A compound according to claim 1, wherein said compound is a condensation copolymer.

5. A compound according to claim 1, wherein said compound is an addition polymer.

6. A compound having at least one unit of the formula:



wherein:

O and S have their normal meaning of oxygen and sulfur;

n is at least 2 and not more than about 8;

R and R¹ are the same or different and are organic divalent radicals, each having from 2 to 20 carbon atoms; and

A is the residue of a dibasic carboxylic acid of from 1 to 40 carbon atoms.

7. A composition of the formulae:

5

(a) $MF_mRS_nR^1OM^1$; or

(b) $MZAORS_nR^1F'_mAZ^1M^1$,

10 wherein

O and S have their normal meaning of oxygen and sulfur;

n is at least 2 and not more than about 8;

15

F is of the formula $-ORS_nR^1OAO-$;

F' is of the formula $-OAORS_nR^1O-$

20

m is at least 1;

Z and Z¹ are the same or different and are oxy or amino;

M and M¹ are the same or different and are hydrogen or an organic substituent;

25

R and R¹ are the same or different and are organic divalent radicals, each having from 2 to 20 carbon atoms; and

A is the residue of a dicarboxylic acid of from 2 to 40 carbon atoms.

30

8. A composition according to claim 7, wherein M and M¹ are hydrogen and A is of from 2 to 12 carbon atoms and R and R¹ are aliphatic.

9. A composition according to claim 7, wherein A is a fatty acid dimer residue and R and R¹ are aliphatic.

10. A composition according to claim 7, wherein:

M is defined as W¹R²-; and

M¹ is defined as W²R³-;

wherein:

R² and R³ are the same or different and are an organic divalent radical having from 2 to 12 carbon atoms; and

W and W¹ are the same or different, and are amino and substituted amino of from about 1 to 6 carbon atoms, hydroxyl, carboxyl, isothiocyanate, isocyanate, oxo-carbonyl, non-oxo-carbonyl, siloxane, silane, cyclocarbonate, active olefin, or active halogen.

11. A copolymer comprising as a monomer a composition according to claim 7 wherein:

said organic substituent for M is defined as W¹R²- and for M¹ as W²R³-;

R² and R³ are the same or different and are an organic divalent radical having from 2 to 12 carbon atoms; and

W and W¹ are the same or different, and are amino and substituted amino of from about 1 to 6 carbon atoms, hydroxyl, carboxyl, isothiocyanate, isocyanate, oxo-carbonyl, non-oxo-carbonyl, siloxane, silane, cyclocarbonate, active olefin, or active halogen.

5

12. A compound according to claim 11, wherein said polymer is a polyurethane.

13. A compound according to claim 11, wherein said polymer is a polyether.

10 14. A compound according to claim 11, wherein said polymer is a polyester.

15. A compound according to claim 11, wherein said polymer is an addition polymer.

15 16. A copolymer according to claim 11, wherein A is a dicarboxylic acid residue of from 2 to 8 carbon atoms and n is 2 to 4.

17. A compound according to claim 15, wherein at least one of W and W¹ is hydroxyl.

20 18. A compound according to claim 15, wherein at least one of W and W¹ is carboxyl.

19. A compound according to claim 15, wherein at least one of W and W¹ is an amine.

25

20. A compound of the formulae:

(a) $MF_mRS_nR^1OM^1$; or

30 (b) $MF_m^lAOM^1$,

wherein:

F is of the formula $-ORS_nR^1OAO-$;

5 F' is of the formula $-OAORS_nR^1O-$;

m is at least 1;

n is of 2 to 4;

10

R and R^1 are ethylene;

A is the residue of an aliphatic dicarboxylic acid of from 2 to 40 carbon atoms;

and

15

M and M^1 are H.

21. A composition resulting from the reaction of the reactants
di(hydroxyethyl)disulfide, succinic or adipic acid and dimethylolpropionic acid and an
20 acid catalyst.

22. An object of a polymer comprising a compound according to claim 1.